

REMARKS

On page 2 of the final Action, claims 5-12 were rejected under 35 U.S.C. 102(b) as being anticipated by Gifford.

In this respect, claims 7 and 8 have been incorporated into claim 5, and claims 11 and 12 have been incorporated into claim 9. Since the structures of the self-tapping screw fastener in claim 5 and the push rod in claim 9 are substantially the same, the invention is explained based on the self-tapping screw fastener in claim 5.

The self-tapping screw comprises a first rod, and a second rod screwed into and fastened to the first rod. The second rod includes a threaded shaft having an external thread to operate as a tapping screw for tapping an internal thread in the inner peripheral surface to thereby be fastened to the first rod, and a smooth guide shaft projecting from an end of the threaded shaft coaxially therewith.

The smooth guide shaft has an outer diameter smaller than an outer diameter of the external thread and larger than an inner diameter of the external thread and an inner diameter of the internal thread to form an annular step at a connecting portion between the smooth guide shaft and the threaded shaft. The annular step contacts a ridge of the internal thread adjacent thereto to prevent the second rod from being rotated in an unscrewed direction relative to the first rod.

In the invention, the annular step forms a small diameter portion around the second rod between the smooth guide shaft and a part of the external thread adjacent thereto, and the second rod including the threaded shaft and the smooth guide shaft with the annular step is integrally formed together by one member.

Since the annular step is formed, when the tap is formed, a part of the inner peripheral surface is pushed into the portion contacting the annular step. Thus, after the tap is formed, the

second rod securely engages the first rod and is prevented from loosening from the first rod.

In Gifford, a screw 1 includes a thread, and a spigot 3 consisting of a core 4 and a coating 5. An upper thread portion adjacent the coating 5 at a left side in the drawing is concaved, while an upper thread portion adjacent the coating at a right side is not concaved inwardly. Thus, the end of the thread portion extends to the spigot 3 without forming a step or concave. Therefore, there is no annular step on the core 4 between the thread and the spigot 3.

In this respect, on page 3, lines 7-12 of the final Action, it was held that "Specifically, the applicant is referred to the end of the coating which forms a convex shape when viewed in cross-section as in the Fig. It is this convex portion which the examiner equates the annular shape. In that regard, when the annular step is considered as the only the convex portion of the coating of Gifford, as described, it formed between the thread and the smooth guide shaft and furthermore, there is no requirement that the annular step cannot be convex."

In claim 5, it is defined such that the second rod including the threaded shaft and the smooth guide shaft with the annular step is integrally formed together by one member. As stated in the final Action, a portion formed by the end of the coating has the annular step, but the coating is covered on the core 4. Namely, the rod with the annular step is NOT integrally formed together by one member, as now clearly recited in claims 5 and 9. The structure recited in claims 5 and 9 are not disclosed in Gifford.

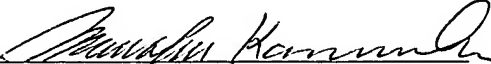
A rejection based on 35 U.S.C. 102 requires every element of the claim to be included in the reference, either directly or inherently. The annular step as recited in claims 5 and 9 are not disclosed in Gifford.

Therefore, claims 5 and 9 of the application are not anticipated by Gifford.

Reconsideration and allowance are earnestly solicited.

Respectfully Submitted,

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